

Exhibit 1

OFFICE OF PETROLEUM COORDINATOR
FOR NATIONAL DEFENSE
RECEIVED

JUL 29 1941

MAILS AND FILES
OFFICE SERVICE DIVISION

HINES H. BAKER,
VICE-PRESIDENT

HUMBLE OIL & REFINING COMPANY

HOUSTON, TEXAS

July 26, 1941

360
Bry
11

Mr. Wright W. Gary
Acting Director of Refining
Office of Petroleum Coordinator
Washington, D. C.

Dear Sir:

In accordance with the request contained in your telegram of July 21, there is presented herein complete data on aviation gasoline and blending agent production at the refineries of the Humble Oil & Refining Co.

At the present time aviation gasoline is produced at two of our refineries, namely, Baytown and San Antonio. In addition, facilities are being installed at our Ingleside Refinery for production of aviation gasoline.

Our Baytown Refinery is located at Baytown, Texas, and has an average daily crude charging capacity of 150,000-160,000 barrels per day, and a fresh feed charging capacity of cracking equipment of 90,000-100,000 barrels per day. In addition to facilities for producing various grades of fuel products, i.e. gasoline, refined oils, gas and heating oils, and fuel oils, special equipment is operated for the production of various grades of lubricants, special naphthas, and aviation products. Aviation gasoline production is divided into two general classes, namely, aviation base stocks consisting primarily of straight run naphtha of satisfactory octane number and distillation characteristics, and blending agents consisting of alkylate, isopentane, and copolymer. The aviation base stocks are produced from selected grades of crude oil, from distillate produced in primary distillation equipment consisting of pipe stills and shell still batteries. These prime cut naphthas are then finished to a quality satisfactory for blending into various grades of aviation gasolines by sweetening, stabilization and redistillation.

The production of blending agents is obtained from light hydrocarbons, which are derived from two sources, namely, from gases produced in refinery cracking and distilling operations and from a field natural gasoline stream received at the refinery by pipe line. Recovery facilities consist of compression, absorption, and stabilization equipment which permit substantially complete recovery of the butane and heavier fractions from refinery gases, and special fractionation facilities permit the segregation of the following fractions from the recovered refinery light ends: propane and lighter, butane, pentane, and hexanes and heavier, each of which contains various isomeric paraffins and olefins. Fractionation equipment also effects the segregation of propane, isobutane, normal butane, and isopentane from field natural gasoline.

Butane-butylene fractions recovered from refinery gases are charged to a Shell Type Hot Acid Polymerization Plant for the production of copolymer which is sold to the Standard Oil Company of Louisiana and hydrogenated at their Baton Rouge Refinery for the production of hydrocodimer. The capacity of this plant is about 1,200 barrels per calendar day of copolymer, average production being approximately 900 barrels per day.

NARA CP
RG 253 Entry 510
Box 3510

MAA_EM-000750

Mr. Wright W. Gary

-2-

7/26/41

The partially spent butane fraction discarded from the copolymer plant, together with other butylenes, pentylenes, and isobutane is charged to an alkylation plant producing on present operations from 2,900 to 3,000 barrels per day total alkylate, which yields about 2,500 barrels per day of alkylate suitable for blending into aviation gasoline. Some isopentane is also recovered from the spent pentane fraction after the alkylation plant, which, with isopentane produced by fractionation of field natural gasoline, averages approximately 1300 barrels per day. Other aviation facilities consist of blending tankage and equipment for blending tetraethyl lead.

Our San Antonio Refinery is a topping plant located at San Antonio, Texas, and has a crude charging capacity of 5,000 barrels per day. A prime cut naphtha is produced from selected crude oil, which is in turn stabilized, sweetened, and redistilled to proper vapor pressure, octane number, and distillation specifications. This stock is blended with alkylate and isopentane which are received from our Baytown Refinery by tank car for the production of 100 O.N. aviation gasoline containing 3 c.c. of lead per gallon.

Our Ingleside Refinery is located at Ingleside, Texas, and has a crude charging capacity of about 30,000 barrels per day and a fresh feed cracking capacity of about 23,500 barrels per day. As already stated, facilities are not yet available for the production of aviation gasoline at this plant, but we expect to complete installation work in October. We expect to produce a prime cut naphtha from selected crude oil, finish the same to aviation gasoline specifications by sweetening, stabilizing and redistillation. At the present time we propose making 73 octane and 91 octane leaded aviation gasoline meeting specifications required by the Army and Navy.

The following table presents our present average daily production in barrels 42's of aviation gasoline components, together with typical inspections of these products:

	BAYTOWN REFINERY				SAN ANTONIO
	Alkylate	Isopentane	Straight Run		Straight Run
Production, B/D	2,500	1,300	2,075	1,375	325
Inspection:					
Gravity	69.5	95.0	70.5	63.0	67.5
I.B.P.	140	-	110	130	116
F.B.P.	330	-	236	275	289
% @ 158°F	2	-	51	5	12
% @ 203°F	17.5	-	93	55	57.5
% @ 212°F	24.5	-	97	96	67
% @ 257°F	86.5	-	-	-	95
% @ 302°F	96	-	-	-	-
R.V.P.	3.2#	20.4#	7.5#	5#	6#
A.S.T.M. Oct. No.	91-92	91	73-74	74-75	73-74
Isopentane Content	-	Approx. 97%	-	-	-

NARA CP
RG 253 Entry 510
Box 3510

MAA_EM-000751

Mr. Wright W. Gary

-3-

7/26/41

From the above components the following grades of aviation gasoline are produced:

4,984 barrels per day of 100 octane gasoline meeting Government Specification AN-VV-F-781. Approximate components used are 2,500 barrels per day of alkylate, 1,818 barrels per day of straight run, and 676 barrels per day of isopentane, plus 3 c.c. of lead per gallon. 13.6

The remainder of the isopentane after producing the maximum quantity of 100 octane gasoline is sold as a blending stock to other companies with the exception of relatively small quantities used in other grades of aviation gasoline as permitted by vapor pressure specifications.

The straight run gasoline remaining after blending 100 octane gasoline (approx. 1,957 barrels per day) is used to make grades of leaded and unleaded gasoline as shown below:

Grade	Specifications	Lead Used
65 Octane	AN-VV-F-756	None
73 "	AN-VV-F-761	0.8 cc/gal. (with lower oct. base stock)
74 "	(See (a) below)	None
80 "	(See (b) below)	0.5 cc/gal.
87 "	(See (c) below)	2.3 cc/gal.
90 "	(See (d) below)	3.5 cc/gal.
91 "	AN-VV-F-776	3.5 cc/gal.

	(a)	(b)	(c)	(d)
Gravity	63-67	63-67	63-67	63-67
% @ 124 max.	5	5	5	5
% @ 140 max.	10	10	10	10
% @ 149 min.	5	5	5	5
% @ 160 min.	10	10	10	10
% @ 203 min.	50	50	50	50
% @ 257 min.	90	90	90	90
% @ 302 min.	96	96	96	96
F.B.P. max.	329	329	329	329
ASTM Oct. No. min.	74	80	87.5	90
CFR Aviation Oct. min.	73	-	-	91
R.V.P. max.	7#	7#	7#	7#
Color	25	Blue	Blue	Blue
Doctor Test	Pass	Pass	Pass	Pass
Copper Dish Corrosion	Pass	Pass	Pass	Pass
Cu. Dish Gum (3 mgs max)	Pass	Pass	Pass	Pass
Freezing Point	-76°F.	-76°F.	-76°F.	-76°F.
Sulphur - max.	0.05%	0.05%	0.05%	0.05%
Lead - cc/gal.	None	0.3-2.0	0.3-3.0	0.25-4.0

In addition to the foregoing, we produce, as already indicated, approximately 900 barrels per day of copolymer, which is sold to the Standard Oil Company of Louisiana.

NARA CP
RG 253 Entry 510
Box 3510

MAA_EM-000752

Mr. Wright W. Gary

-4-

7/26/41

The following table shows present available storage capacity at Baytown and San Antonio for the various grades of aviation gasoline and blending components:

PRESENT AVAILABLE STORAGE CAPACITY BY GRADES

<u>Baytown</u>	
73 Octane	
74 "	4,100 bbls.
91 "	40,000 "
100 "	8,200 "
100 " (Base)	52,000 "
Alkylate	265,000 "
Straight Run	295,000 "
Alkylate-Isopentane Blend	190,000 "
Isopentane	9,300 "
	95,000 "
<u>San Antonio</u>	
100 Octane	11,250 bbls.

It has been stated above that the present capacity of the Baytown alkylate plant is 3,000-barrels per day of total alkylate from which is produced an average of 2,500 barrels per calendar day of aviation quality alkylate. Plans for expansion of these facilities are discussed below.

At the present time there is being installed additional debutanizer and refrigeration equipment which should be completed by January 1, 1942. With this equipment the capacity of the alkylation plant will be increased to 3,400 barrels per day of total alkylate, from which we expect to make 2,800 barrels per calendar day of aviation alkylate. This will permit increasing our output of 100 octane aviation gasoline approximately 600 barrels per day and will also yield approximately 140 barrels per day of additional isopentane.

There is also under construction at the Baytown Refinery a fluid catalyst cracking unit, which is scheduled for completion by April 1, 1942. Additional raw materials supplied from this unit will permit us to increase total alkylate production to 3,700 barrels per day, equivalent to 3,050 barrels per calendar day of aviation alkylate, and will increase 100 octane gasoline supplies by about 500 barrels per day. Expansion of refrigeration facilities at the alkylation plant will be necessary to realize these higher productive rates. In addition to increased alkylate production, as a result of installation of the catalyst unit, copolymer production will be increased by about 300 barrels per day, which, after hydrogenation, will be sufficient blending agent for production of 650 barrels per day of 100 octane gasoline.

The maximum production rate of straight run base stocks is dependent to a large extent upon the availability of satisfactory grades of crude oil. We estimate that the present rerun facilities at Baytown will permit production of approximately 5,500 barrels per day, which compares with present production of 3,450 barrels per day.

Mr. Wright W. Gary

-5-

7/26/41

A new aviation rerun unit is now under construction at Baytown and will be used as a replacement for one of our older rerun units. This unit will provide some additional distillation capacity, although we are unable to quote specific quantities at this time. A further possible source of production of aviation base stock is from the fluid catalyst cracking unit already mentioned, should we require supplies over and above the quantity available from suitable grades of crude oil. By certain modifications in equipment and method of operation of the fluid catalyst cracking unit and by use of a suitable type of catalyst, it has been indicated in pilot unit studies that the fluid catalyst unit could be utilized for production of aviation base stock in the amount of 2,500-3,000 barrels per day.

No expansions are planned at this time for the production of isopentane. We estimate a maximum production capacity from present and expanded operations of approximately 1,500 barrels per day.

The quantities quoted above with regard to productive rates of aviation base stocks and blending agents assume capacity operation, particularly of our Baytown Refinery, with present cracking facilities and after installation of the fluid catalyst unit. The estimates of productive rates of alkylate are also dependent upon continued receipt of isobutane from natural gasoline plants in the East Texas field at approximately the same rate as is now being maintained. It should be definitely understood that curtailment in refinery operations or in crude allowables in the East Texas field will have a material effect upon our aviation gasoline situation. Due to the many uncertainties in our present outlook, it is not possible to predict with any degree of accuracy our future refinery program.

I believe that the foregoing presents a rather complete picture of our aviation gasoline situation. I might mention that during the last half of this year we have Government contracts for aviation gasoline in the amount of 554,948 barrels, of which 473,519 barrels is 100 octane, the balance being in the form of 91, 73, and 65 octane. Included in the 100 octane volume is 214,286 barrels to be stored for the account of the Army.

Yours very truly,


HINES H. BAKER

HHB:F:M

NARA CP
RG 253 Entry 510
Box 5510

MAA_EM-000754

Exhibit 2

Capital Reporting Company
White, Richard Lane 06-06-2013-- Vol. 1

1

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

-----: :
: :
EXXON MOBIL CORPORATION, : :
: :
Plaintiff, : CA No. 4:10-cv-2386
: :
v. : and
: :
THE UNITED STATES OF AMERICA, : CA No. 4:11-cv-01814
: :
Defendant. : Volume I
: :
-----:

Washington, D.C.

Thursday, June 6, 2013

Deposition of:

RICHARD LANE WHITE,

Called for examination by counsel for Defendant,
pursuant to notice, at the Law Offices of Baker
Botts, 1299 Pennsylvania Avenue, NW, Washington,
D.C., before Barbara A. Huber of Capital Reporting,
CSR, and Notary Public in and for the District of
Columbia, beginning at 9:35 a.m., when were present
on behalf of the respective parties:

Capital Reporting Company
White, Richard Lane 06-06-2013-- Vol. 1

403

1 Q No.

2 A Well, my point is it falls in this
3 bubble. I don't know what the court's going to use
4 to say --

5 Q Okay.

6 A -- yea or nay.

7 Q So you don't have an opinion about that
8 one way or another?

9 A No.

10 Q Okay. Fair enough.

11 Okay. Bear with me a minute. I think we
12 have some things we can skip.

13 A Okay.

14 Q Okay. Here comes your copy of Shell. I
15 think I have enough to give you an extra one that
16 you can take home.

17 So I'm going to show you what's been
18 marked as White 15. I'll represent to you that
19 that's a copy of the 9th circuit's opinion in
20 United States versus Shell Oil. I will give
21 Mr. Steinway one -- although I'm sure he has his
22 own autographed copy back in his office -- and I

Capital Reporting Company
White, Richard Lane 06-06-2013-- Vol. 1

404

1 will give you a spare copy to take home for later,
2 and I will keep one.

3 I take it you have seen that decision at
4 some point in the past --

5 A I have.

6 Q -- correct?

7 All right. And you have not read it
8 recently?

9 Neither of us has probably read it
10 recently enough --

11 A No.

12 Q -- to have the discussion about it that
13 we may want to have tomorrow off the record.

14 A That's correct.

15 Q Okay. But there is something specific I
16 wanted to do with you here with respect to the
17 opinion that does not have to do with the issue we
18 were speaking about off the record earlier.

19 I wanted you first to look on page 5 of
20 the slip opinion. In the right-hand column, do you
21 see Roman I, Factual Background?

22 A I'm sorry, where are you?

Capital Reporting Company
White, Richard Lane 06-06-2013-- Vol. 1

405

1 Q Sorry. The pages are in the top
2 right-hand corner.

3 A Yes.

4 Q So I'm looking for page 5 of the slip
5 opinion.

6 A Yes, I'm there.

7 Q And right-hand column, Roman I, Factual
8 Background, subpart A, Avgas Production.

9 A Yes.

10 Q Are you with me?

11 A I'm there.

12 Q And do you see right under that where the
13 court says the parties have entered into a
14 comprehensive stipulation on which the following
15 narrative is based?

16 A I do.

17 Q And then the court goes on to describe
18 the wartime aviation gasoline program.

19 So what I wanted to ask you to do is turn
20 to page 6 of the opinion and see if we can locate a
21 paragraph at the top of the page that begins,
22 Because avgas was critical.

Capital Reporting Company
White, Richard Lane 06-06-2013-- Vol. 1

406

1 Do you see that?

2 A I see that.

3 Q And what I'd like to have you do is to
4 read to yourself the next couple of paragraphs down
5 to the heading labeled B.

6 Do you see that in the second column?

7 A I do.

8 Q Okay. And tell me whether this
9 description is consistent with your understanding
10 and the understanding then formed your allocation
11 efforts as to how the aviation gasoline program
12 worked during World War II.

13 And if it's not, what you disagree with.

14 A (Witness looked at document).

15 MR. STEINWAY: I'm going to object to the
16 question to the extent that it calls for a legal
17 conclusion.

18 THE WITNESS: I've read it.

19 BY MR. ROWE:

20 Q Okay. Anything there that sticks out as
21 something that is inconsistent with the
22 understanding you had when you conducted your

Capital Reporting Company
White, Richard Lane 06-06-2013-- Vol. 1

407

1 allocation for either Exhibit 1 -- your report,
2 sorry, for Exhibit 1 or 2?

3 A I don't think so, as I sit here today.

4 There are clearly some specifics that are
5 Mr. Gravel's focus of work, and not mine. But I
6 think the general thrust is consistent with my
7 understanding.

8 Q Okay. Thank you.

9 Okay. Have you read either of
10 Dr. Kittrell's reports in this case?

11 A There are three, right?

12 Q I'm sorry, either of the first two?
13 We'll leave the third one out.

14 A Actually, it's the third one that I would
15 take issue with, but we'll talk about that
16 separately. I think there is a very strange
17 problem in there, but that's okay.

18 Q Okay. Well, we'll come back to that.
19 Let's talk about the first two.

20 A I have read through them, and in
21 particular focusing on his issues with respect to
22 some of the factors I employ.

Exhibit 3

Reproduced from the holdings of the National Archives
Pacific Southwest Region

**CAPITAL FLOW AND CAPITAL FORMATION
IN THE PETROLEUM INDUSTRY
1934-1941**

•

by

JOSEPH E. POGUE

and

FREDERICK G. COQUERON

Department of Petroleum Economics,
The Chase National Bank

•

(A Paper Presented Before the Petroleum Division
of the American Institute of Mining and
Metallurgical Engineers, New York,
February 18, 1943.)

PAW00442

MCD026

0900 FL

US-SH057802

Reproduced from the holdings of the National Archives
Pacific Southwest Region

CAPITAL FLOW AND INVESTMENT IN THE PETROLEUM INDUSTRY, 1924-1941

by

Joseph E. Logan

and

Frederick G. Caperton

Department of Petroleum Economics, The Chase National Bank

(A Paper Presented Before the Petroleum Division of the American Institute of Mining and Metallurgical Engineers, New York, February 13, 1943.)

Introduction

The purpose of this paper is to show the flow of capital in the petroleum industry for the eight-year period, 1924-1941, outlining its movements into the various divisions of the business, the sources from which the capital was derived, and the final investment subdivided by functions. The method adopted in this analysis is to construct, from financial reports and other published data supplemented by confidential information, a series of combined statements for 30 oil companies^a. This list is sufficiently comprehensive to be representative of the industry as a whole. The 30 companies in 1941 produced 52.5 per cent of the domestic output of crude petroleum and ran to stills 79.9 per cent of the nation's total crude oil processed; and in 1938 sold 45.1 per cent of the gasoline consumed in the United States. The financial summaries apply predominately to the domestic oil business, although it has not been possible to segregate and exclude investments in foreign assets in the case of several companies. The reader, however, may make a mental adjustment for this necessary lack of homogeneity by noting that 9.3 per cent of the gross investment, and 3.2 per cent of the net investment, in fixed capital assets at the close of 1941 cover facilities located outside the United States. Other studies of this general character have been made by Koch^b and by Gill and Weatherby^c, while investment data have been compiled by the American Petroleum Institute and others^d.

^a These companies are: Amerada Petroleum Corporation, Atlantic Refining Company, Bernsdall Oil Company, Consolidated Oil Corporation, Continental Oil Company, Gulf Oil Corporation, Houston Oil Company, Lion Oil Refining Company, Louisiana Land and Exploration Company, Mid-Continent Petroleum Corporation, Ohio Oil Company, Pacific Western Oil Corporation, Phillips Petroleum Company, Plymouth Oil Company, Pure Oil Company, Richfield Oil Company, Seaboard Oil Company, Shell Union Oil Corporation, Skelly Oil Company, Socony-Vacuum Oil Company, Standard Oil Company of California, Standard Oil Company (Ind.), Standard Oil Company (N.J.), Standard Oil Company (Ohio), Sun Oil Company, Texas Company, Texas Gulf Producing Company, Texas Pacific Coal and Oil Company, Tide Water Associated Oil Company, and Union Oil Company of California.

^b Albert R. Koch, The Flow of Funds Through Selected Large Petroleum Companies, 1921-39, (Based on 11 oil companies), National Bureau of Economic Research, Sept. 12, 1940.

^c John D. Gill and J.S. Weatherby, The Petroleum Industry's Investment in the United States, Paper, Am. Inst. Min. & Met. Eng., Feb. 12, 1942. See also L.J. Logan, Oil Weekly, Aug. 17, 1942, pp. 14-16, 35-36; and Henry E. Rose, World Petroleum, Nov. 1942, pp. 22-25.

^d See Facts and Figures, American Petroleum Institute, New York, 1937, 1941. See also V.B. Guthrie, National Petroleum News, Feb. 5, 1936, pp. 41-44.

PAW00443

MCD026

09011FL

Reproduced from the holdings of the National Archives
Pacific Southwest Region

- 2 -

The outstanding conclusion to be drawn from this study is that the petroleum industry in the eight-year period preceding our entry into the present World War was financially self-reliant, providing for its growth practically entirely from capital charges and net profits. The data presented in this paper should also prove useful to oil companies as constituting norms against which individual performance and divergence can be measured.

Capital Expenditures

The flow of capital into fixed assets in the various segments of the oil business is shown in Table 1 and Figure 1 for the eight years ending with 1941. The total amount invested by 30 oil companies was 5275 million dollars^a. During this period the annual fluctuations in the size of the stream varied closely with the price of crude oil (see Figure 1), which confirms the thesis that one of the most important functions of price is to regulate the flow of capital. As an average for the period, 60 per cent of the funds invested in fixed capital assets went into the producing branch, while 40 per cent was expended in all other branches. If we separate the eight-year period into two equal parts, it will be found that the capital flow into the production division in comparison with the rest of the divisions was greater in the first half than in the second, as shown below:

Capital Expenditures of 30 Oil Companies,
1934-1941, by Divisions

<u>Divisions</u>	<u>1934-37</u>	<u>1938-41</u>	<u>1934-41</u>
	<u>-----In Per Cent of Total-----</u>		
Production	64.8	55.7	60.0
Transportation	8.2	13.6	11.0
Refining	12.1	16.0	14.2
Marketing	14.4	13.7	14.0
All Other	0.5	1.0	0.8
Total	100.0	100.0	100.0

The increase of investments in the transportation and refining segments of the industry in the four years, 1938-1941, is accounted for principally by the discovery of the Illinois fields requiring substantial outlays for crude oil pipe line facilities; by additions to tanker fleet; by the construction of product pipe line facilities in the southeastern states; and by the installation of catalytic units for the manufacture of high octane gasoline. Expenditures for marketing facilities reached a new high in 1941, primarily as a result of construction of retail service stations. The decline in expenditures in the producing division correlated with the recession in crude oil prices and the general deflation in the economic cycle following the boom year of 1937.

Over the eight-year period, the total capital invested in leases, wells and equipment was 3040 million dollars^b. During this same period, 9.5 billion barrels of

^a The figure given does not include investments in and advances to non-consolidated subsidiaries and affiliated companies made by the 30 oil companies. These amounts cannot be precisely compiled but probably aggregated 200 to 250 million dollars gross.

^b This figure does not include substantial sums expended for maintaining land, geological and geophysical departments and for lease rentals on undeveloped acreage.

PAW00444

MCD026

0902 FL

Reproduced from the holdings of the National Archives
Pacific Southwest Region

- 3 -

crude oil were produced in the United States. If we assume that the 1941 ratio held for the entire period, then the 30 companies under consideration produced 52.5 per cent of the total, or 5.0 billion barrels. If we assume further that 90 per cent of the investment was allocated to domestic oil fields, then the average investment per barrel of production was 55 cents. In other words, during the eight years, 1934-1941, crude oil production in the United States increased 55 per cent and for every barrel recovered 55 cents was invested in crude oil producing facilities. This relationship indicates the importance of reinvestment in maintaining crude oil supply.

Sources of Capital

It was shown in Table 1 that 30 oil companies in the eight years invested 5275 million dollars in the maintenance and expansion of the oil business. What were the sources of this capital? Table 2 indicates that 3874 million dollars, or 73 per cent, was derived from "capital extinguishments," that is, deductions from income set aside as return of capital and therefore available for reinvestment. In Table 2 is shown the breakdown of these charges into their various accounts, of which depreciation represents 69 per cent.

Reference to Table 3 and Figure 2 will reveal how closely the petroleum industry came to supporting itself capitalwise. The 30 oil companies in eight years reported net income of 2925 million dollars which, with the addition of 3874 millions for capital extinguishments and 160 millions for other charges, indicates a total cash production of 6959 million dollars, which was sufficient to support capital expenditures of 5275 millions and dividends of 1617 millions, with a margin left over of 67 millions. It should be noted also that dividends for the whole period represented 55 per cent of net income -- a very conservative proportion -- and only 23 per cent of cash production. Therefore, out of every dollar of cash produced, 77 cents was ploughed back into the business.

As a matter of fact, the 30 oil companies during the eight prewar years increased their consolidated funded and long-term debt by a net amount of only 190 million dollars, going from 875 millions on January 1, 1934, to 1065 millions on December 31, 1941. Table 4 shows this item along with the change in total borrowed and invested capital which on December 31, 1941, amounted to 7417 million dollars. The turnover in the oil industry's capital is illustrated by the fact that the cash invested in fixed assets in eight years was 52 per cent of the gross investment in service at the end of the period. It would appear that the oil industry must replace its capital as a whole every fifteen years.

The total funded and long-term debt of the 30 oil companies at the close of 1941, amounting to 1065 millions of dollars (see Table 4), was derived as follows: from the public, 55 per cent; from banks, 17 per cent; from insurance companies, 14 per cent; and from other sources, 14 per cent.

The net working capital of the 30 oil companies increased 185 million dollars over the eight-year period, as shown in Table 5, and the composite ratio of current assets to current liabilities declined from 4.89 to 3.20 between the beginning and the end of the period. Tables 4 and 5, in conjunction with Table 3, permit the sources and destinations of the capital flow to be reconciled and balanced from an accounting standpoint and Table 6 shows how this is done. The only sources of income, aside from the companies' own cash production, was 190 millions from borrowings and 73 millions from sale of common stock; and the only application of capital, aside from expenditures for plant and facilities and for dividend

PAWO0445

MCD026

0903 FL

US-SH057805

Reproduced from the holdings of the National Archives
Pacific Southwest Region

- 4 -

payments, was 50 millions for retirement of preferred stocks, 95 millions for investments in other companies and other purposes, and an increase of 185 millions in working capital.

Cumulative Investment

In the foregoing sections we have dealt with the flow of capital and how it was financed. We shall now analyze the accumulated effects of these processes; that is, the resulting investment in fixed capital assets broken down into its functional parts.

Table 7 reveals the growth in the gross investment in fixed capital assets of the 30 oil companies, from 8281 million dollars at the beginning of 1934 to 10173 million dollars at the close of 1941. Table 8 gives both the gross and net investment at the end of 1941, classified by divisions and facilities of the business. (See also Figure 3.) For example, of the total gross investment, production accounts for 49.0 per cent; transportation, 15.2 per cent; refining, 18.7 per cent; marketing, 15.1; and all other, 2.0 per cent.

A view of the invested capital from a different point of view is given in Table 9 and Figure 4 which show the borrowed and invested capital employed by 30 oil companies, classified according to its financial character. The small proportion of capital in the form of debt is significant, ranging from 12.8 per cent at the close of 1933 to 14.4 per cent at the close of 1941. Roughly, 80 per cent of the capital employed by the group of oil companies under review is in the form of common stock and surplus, with surplus being about two-thirds the amount of the common stock, a reflection again of a conservative dividend policy.

A reconciliation of the funds invested in fixed assets, as shown in Table 8, with the total borrowed and invested capital, as shown in Table 9, may be summarized as follows:

Distribution of Borrowed and Invested Capital,
30 Oil Companies, Close of 1941

	Mill.Dolls.	% of Total
Properties, plant and equipment (after deducting accumulated reserves)	4,903	66.1
Net quick assets	1,766	23.8
Investment in foreign subsidiaries, not consolidated	261	3.5
Investment in affiliated and other com- panies	721	9.7
Sub-Total	7,651	103.1
Less:		
Reserves for contingencies and other purposes	234	3.1
Total borrowed and invested capital employed	7,417	100.0

PAW00446

MCD026

0904 FL

US-SH057806

Reproduced from the holdings of the National Archives
Pacific Southwest Region

- 5 -

Return on Investment

It may be of further interest to compute the rate of return on invested capital for the group of companies. The calculations have been made for 29 oil companies and the method employed was to calculate the ratio of reported net income available for preferred and common stocks to the average of the net worth at the beginning and end of each year. The results of these calculations are shown in Table 10 and Figure 5. The average rate of return for the eight-year period was 6.4 per cent, with a range of 2.9 per cent in 1934 to 10.1 per cent in 1937. The results were also subdivided for the eight-year period into three groups according to the degree of integration; solely producing companies showed an average return of 8.7 per cent; companies with crude production in excess of refinery requirements, 7.9 per cent; and companies with refinery requirements in excess of crude production, 6.3 per cent. Producing companies were, accordingly, slightly more profitable than integrated companies, as should be the case because of their large requirements for venture capital.

The rate of return earned by 29 oil companies for the eight years ending with 1941 is 2.3 points less than that of a group of over 1100 manufacturing companies as compiled by The National City Bank. The comparison is as follows:

Rate of Return on Invested Capital of 29 Oil Companies
Versus Group of Over 1100 Manufacturing Companies
By Years, 1934-1941

Year	29 Oil Companies	Over 1100 Manufacturing Companies	Difference
1934	2.9	4.3	-1.4
1935	4.9	6.7	-1.8
1936	7.7	10.4	-2.7
1937	10.1	10.8	-0.7
1938	5.1	4.8	+0.3
1939	5.4	8.5	-3.1
1940	6.3	10.3	-4.0
1941	8.8	12.4	-3.6
Average	6.4	8.7	-2.3

One of the 30 companies was excluded because of the lack of adequate information for the earlier years. The invested capital of this company on December 31, 1941, was 1.4 per cent of the group total.

PAW00447

MCD026

0905 FL

US-SH057807

Reproduced from the holdings of the National Archives
Pacific Southwest Region

- 6 -

Conclusions

Analysis of the financial data covering a representative group of 30 oil companies for a period of eight prewar years, aside from constituting an economic and accounting record, leads to several broad conclusions:

1. The petroleum industry generated the capital necessary for its maintenance and expansion, thus constituting a self-reliant industry.
2. The net increase in debt was very modest and the existing ratio of debt to other forms of capital is conservative.
3. Investments in fixed capital assets increased in importance between 1934 and 1941, and current assets became less important in relationship to borrowed and invested capital.
4. Nearly two-thirds of the capital invested went into the producing branch of the industry, indicating the high cost of replacing and increasing crude oil reserves.
5. The efficiency of capital utilization is indicated by the fact that the 30 oil companies under review increased their crude oil production by 55 per cent and their runs to stills by 52 per cent between 1934 and 1941 as compared with a net expansion of 23 per cent in gross fixed capital assets.
6. The gross investment in fixed capital assets of 30 oil companies on December 31, 1941, was 10173 million dollars, divided as follows: production, 49.0 per cent; transportation, 15.2 per cent; refining, 18.7 per cent; marketing, 15.1 per cent; and all other, 2.0 per cent.
7. The flow of funds exhibited cyclical variations, expenditures for capital investments fluctuating with changes in the price of crude oil.
8. The return on invested capital for 29 oil companies for eight years averaged 6.4 per cent against 8.7 per cent for a group of over 1100 manufacturing companies.
9. The consolidated statements here submitted point to an oil economy functioning soundly and effectively.

- - - 0 - - -

PAW00448

MCD026

0906 FL

PAW00449

Reproduced from the holdings of the National Archives
Pacific Southwest Region

TABLE 1
TEND OF GROSS EXPENDITURES BY OIL COMPANIES
FOR PROPERTIES, PLANT AND EQUIPMENT CLASSIFIED BY DIVISIONS AND FACILITIES
FOR THE EIGHT-YEAR PERIOD, 1934-1941

DIVISIONS & FACILITIES	In Thousands of Dollars								Total 1934-41
	1934	1935	1936	1937	1938	1939	1940	1941	
Leases, Wells & Equipment	268,665	333,363	375,997	576,714	382,795	348,351	345,375	409,109	3,040,369
Crude Oil Purchasing & Marketing	5,478	4,465	9,101	12,005	6,511	8,857	6,454	6,287	59,158
Natural Gasoline Plants	29	10	118	592	611	388	564	409	2,721
Natural Gas	10,050	4,157	7,295	15,882	5,114	6,454	10,244	4,900	64,276
Total Production Division	284,222	341,995	392,511	605,193	395,231	364,050	362,637	420,705	3,166,524
Crude Oil Pipe Lines	14,260	16,784	31,943	43,661	19,238	37,798	35,026	57,182	255,892
Product Pipe Lines	50	2,451	3,102	5,847	2,153	5,106	3,444	23,890	46,043
Marine	9,804	7,349	36,132	27,228	32,119	38,219	46,072	66,726	266,649
Tank-Cars	253	427	559	889	193	244	776	398	3,739
Motor Transport	766	822	875	1,203	723	729	814	1,560	7,512
Total Transportation Division	25,133	27,833	72,611	78,238	54,436	82,106	86,132	152,756	579,835
Refining Division	64,219	52,866	74,072	112,344	106,982	117,209	103,705	113,578	746,975
Marketing Division	81,378	78,996	87,104	112,201	93,243	83,211	91,259	113,119	740,511
Administrative	661	590	1,130	1,328	1,027	2,384	554	1,987	9,661
Mining	4	46	237	31	109	84	22	136	669
Shipbuilding	191	118	424	443	978	849	1,406	718	4,825
Unallocated	-201	6,116	-3,768	5,776	3,290	6,529	3,227	4,681	25,733
Total All Other	555	6,870	-1,977	7,576	5,364	9,569	5,429	7,522	40,888
Grand Total	455,507	508,560	624,321	916,122	657,256	696,145	649,142	807,680	5,274,733
DIVISIONS	1934	1935	1936	1937	1938	1939	1940	1941	Total 1934-41
	In Per Cent of Total								
Production	62.4	67.2	62.9	66.1	60.1	55.5	59.9	52.1	60.0
Transportation	5.5	5.5	11.6	8.6	8.3	12.5	13.3	18.9	11.0
Refining	14.1	10.4	11.9	12.3	16.6	17.9	16.0	14.1	14.2
Marketing	17.9	15.5	13.9	12.2	14.2	12.7	14.0	14.0	14.0
All Other	0.1	1.4	-0.2	0.8	0.8	1.4	0.8	0.9	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

NOTES: Summarization is based on the combined expenditures of the companies and their consolidated subsidiaries for facilities located in the United States and foreign countries, and excludes expenditures by these companies for investments in and advances to non-consolidated subsidiaries and affiliated companies.

Expenditures represent gross additions to fixed asset accounts (per Annual Report to Stockholders, Form 10-K submitted to S.E.C. and other sources); and also include intangible development costs of producing wells and dry holes, and lease purchase costs charged to income account, if data were reported.

MCD026

0907 FL

Reproduced from the holdings of the National Archives
Pacific Southwest Region

TABLE 2

COMPARISON OF GROSS EXPENDITURES FOR PROPERTIES, PLANT AND EQUIPMENT
WITH CAPITAL EXTINGUISHMENTS CHARGED TO INCOME ACCOUNT BY 30 OIL COMPANIES
FOR THE EIGHT-YEAR PERIOD, 1934-1941

Year	Gross Expenditures	Capital Extinguishments	Excess Expen- ditures over Extinguishments
-----In Millions of Dollars-----			
1934	456	422	34
1935	509	441	68
1936	624	458	166
1937	916	493	423
1938	657	504	153
1939	656	502	154
1940	649	523	126
1941	808	531	277
Total 1934-1941	5,275	3,874	1,401

ANALYSIS OF CAPITAL EXTINGUISHMENTS
Years 1934-1941

	Mill. Dolls.
Depreciation	2,664
Depletion & Lease Amortization	241
Intangible Development Costs	235
Amortization of Intang. Devel. Costs	168
Dry Holes & Wells Abandoned	154
Cancelled Leases & Lease Purchases	169
Property Retirements	186
All Other	57
Total	3,874

PAW00450

MCD026

0900 FL

TABLE 2

ESTIMATED CASH INCOME FROM EARNINGS OF 20 OIL COMPANIES
AVAILABLE FOR DIVIDENDS AND CAPITAL EXPENDITURES
DURING THE EIGHT-YEAR PERIOD, 1934-41

Year	Reported Net Income	Capital Expenditures	Asort. of Intangible Assets	Prov. for Mar. Losses & Contingencies	Estimated Cash Income From Operations	Preferred & Common Dividends Paid	Balance Available For Capital Expenditures ^b	Balance Available For Other Purposes ^c
In Millions of Dollars								
1934	156	422	3	1	582	128	454	456
1935	253	441	3	5	702	119	583	509
1936	415	458	3	8	884	233	651	624
1937	573	493	4	6	1,076	289	787	916
1938	300	504	3	5	812	199	613	657
1939	321	502	4	19	846	189	657	656
1940	377	523	3	24	927	209	718	649
1941	530	531	3	66	1,130	251	879	808
Total 1934-41	2,925	3,874	26	134	6,959	1,617	5,342	5,275

NOTES:

- a - Includes charges to income account for depreciation, depletion, amortization, property retirements, cancelled leases and intangible development costs.
- b - Represents gross additions to fixed asset accounts plus intangible development costs of producing wells and dry holes and lease purchase costs charged to income account.
- c - Includes \$109,616,000 in respect of acquisition by International Petroleum (consolidated subsidiary of S. O. New Jersey) of an undivided one-half interest in the properties and facilities in Venezuela owned by Mene Grande Oil (consolidated subsidiary of Gulf Oil); \$75,000,000 of purchase price represented by non-interest-bearing purchase obligation maturing as follows: 1938-\$26,820,000, 1939-\$23,000,000 and balance of \$23,180,000 on or before 12/15/45. In 1938, International Petroleum sold an undivided one-half interest in these properties to Royal Dutch for \$54,808,000.

PAW00451

MCD026

09091FI

Reproduced from the holdings of the National Archives
Pacific Southwest Region

TABLE 4

CHANGE IN BORROWED AND INVESTED CAPITAL EMPLOYED BY 30 OIL COMPANIES
DURING THE EIGHT-YEAR PERIOD FROM JANUARY 1, 1934 TO DECEMBER 31, 1941

	1/1/34	12/31/41	Change
-----In Millions of Dollars-----			
Funded and Long-Term Debt ^a	875	1,065.2	+190
Preferred Stock ^a	239	189	- 50
Common Stock	3,624	3,439	-185
Surplus	1,793	2,457	+664
Minority Interest	333	267	- 66
Total Borrowed and Invested Capital	6,864	7,417	+553
	1/1/34	12/31/41	Change
-----In Per Cent of Total-----			
Funded and Long-Term Debt	12.7	14.4	+1.7
Preferred Stock	3.5	2.5	-1.0
Common Stock	52.8	46.4	-6.4
Surplus	26.1	33.1	+7.0
Minority Interest	4.9	3.6	-1.3
Total Borrowed and Invested Capital	100.0	100.0	---
NOTES:			
a - Excludes current debt due within one year.			
Includes advances owing to Standard-Vacuum by:			
	1/1/34	12/31/41	
	Mill.	Dolls.	
Socony-Vacuum	24,582	9,660	
S.O. New Jersey	---	9,176	
Total	24,582	18,836	
b - Accrued unpaid dividends were as follows:			
1/1/34	\$12,728,000		
12/31/41	2,505,000		
c - Borrowed from:			
	Mill. Dolls.		
Public	581		
Insurance Companies	149		
Banks	186		
All Other	149		
Total	1,065		

PAW00452

NOTICE: If the film image
is less clear than this
notice, it is due to the
quality of the document
being filmed

McColl - SDS
90 - 11 - 2 - 502
Source: Research, Acumenics -
Archives, Suitland MD

MCD026

09 10 FL

Reproduced from the ¹⁹⁴¹1941 Edition of the National Archives
Pacific Southwest Region

CHANGE IN NET WORKING CAPITAL POSITION OF 30 OIL COMPANIES
DURING THE EIGHT-YEAR PERIOD FROM JANUARY 1, 1934 TO DECEMBER 31, 1941

	1/1/34	12/31/41	Change
-----In Millions of Dollars-----			
Cash	370	647	+277
Marketable Securities	246	359	+113
Inventories of Crude Oil, Refined Products and Merchandise	857	855	- 2
Inventory of Materials & Supplies	116	191	+ 75
Receivables and Other Items	398	515	+117
Total Current Assets	1,987	2,567	+580
Bank Loans, Purchase Obligations and Other Borrowings	51	83	+ 32
Payables, Accruals and Other Items	355	718	+363
Total Current Liabilities	406	801	+395
Net Working Capital	1,581	1,766	+185
Ratio of Current Assets to Current Liabilities	4.89	3.20	-1.69

TABLE 6

SUMMARY OF NET WORKING CAPITAL AVAILABLE TO 30 OIL COMPANIES
FOR FINANCING CAPITAL EXPENDITURES
DURING THE EIGHT-YEAR PERIOD FROM JANUARY 1, 1934 TO DECEMBER 31, 1941

<u>Net Working Capital 1/1/34</u>	<u>Mill. Dolls.</u>
	1,581
<u>Add:</u>	
1. Cash Income from Operations	6,959*
2. Funded Debt and Long-Term Borrowings	190
3. Proceeds from Sale of Common Stock	73
Sub-Total	8,803
<u>Less:</u>	
1. Preferred and Common Dividends Paid	1,617
2. Preferred Stock Retired	50
3. Investment in Securities of Other Companies, Elimination of Foreign Consolidated Subsid- iaries and Other Items	95
<u>Balance Available for Capital Expenditures</u>	<u>7,041</u>
<u>Less: Capital Expenditures</u>	<u>5,275</u>
<u>Net Working Capital 12/31/41</u>	<u>1,766</u>
<u>NOTE:</u>	<u>Mill. Dolls.</u>
* Basis of computation -	
Reported Net Income	2,925
Add: Capital Extinguishments	3,874
Amortization of Intangible Assets	26
Prov. for War Losses & Contingencies	134
Cash Income from Operations	6,959

PAW00453

NOTICE: If the film image
is less clear than this
notice, it is due to the
quality of the document
being filmed

McCOLL - IDS
90 - 11 - 2 - 502
Source: Research, Acumenics -
Archives, Suttland ND

MCD026

09-11-FL

Reproduced from the Holdings of the National Archives
Pacific Southwest Region

TABLE 7

CHANGE IN GROSS INVESTMENT IN PROPERTIES, PLANT AND EQUIPMENT
OF 30 OIL COMPANIES DURING THE EIGHT-YEAR PERIOD FROM
JANUARY 1, 1934 TO DECEMBER 31, 1941

	-In Millions of Dollars-	
Gross Investment 1/1/34	3,281	
Add:		
Expenditures (Gross Additions)	5,117	
Fixed Assets of companies not consolidated in prior years	149	
All Other (includes revaluation of properties, interdepartmental transfers and sundry charges)	38	5,304
Sub-Total		13,585
Less:		
Retirements and Sales	2,447	
Fixed Assets of foreign subsidiaries and branches eliminated from consolidation	460	
Other Credits *	505	3,412
Gross Investment 12/31/41		10,173
Net Increase		1,892
NOTE:		
* Includes -	Mill. Dolls.	
Four public utility natural gas companies eliminated from consolidation (S.O. New Jersey)	185	
Five subsidiaries operating in Far East transferred to Bahrain Petroleum, and pipe line subsidiary (Texas-New Mexico Pipe Line) eliminated from consolidation (Texas Company)	35	
Premiums on investments in capital stocks of subsidiaries written off (Shell Union)	24	
Appreciation of proven oil properties written off (Union Oil)	91	
Subsidiaries eliminated from consolidation, interdepartmental transfers, depreciation and depletion charges credited to fixed asset accounts and sundry credits	170	
Total	505	

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

McColl - EDS
90 - 11 - 2 - 502
Source: Research, Acumenics -
Archives, Suitland MD

PAW00454

MCD026

09 12 FL

US-SH057814

Reproduced from the holdings of the National Archives
Pacific Southwest Region

TABLE 8

SUMMARY OF GROSS AND NET INVESTMENT OF 30 OIL COMPANIES
IN PROPERTIES, PLANT AND EQUIPMENT CLASSIFIED BY DIVISIONS AND FACILITIES
AT DECEMBER 31, 1941

<u>Divisions & Facilities</u>	<u>Gross Investment</u>	<u>Accumulated Reserves</u>	<u>Net Investment</u>
	<u>In Millions of Dollars</u>		
Leases, Wells & Equipment	4,738	2,568	2,170
Crude Oil Purchasing & Marketing	25	10	15
Natural Gasoline Plants	152	95	57
Natural Gas	75	42	33
Total Production Division	4,990	2,715	2,275
Crude Oil Pipe Lines	875	498	377
Product Pipe Lines	80	19	61
Marine	537	290	247
Tank-Cars	38	26	12
Motor Transport	14	8	6
Total Transportation Division	1,544	841	703
Refining Division	1,898	1,058	840
Marketing Division	1,540	570	970
Administrative	53	18	35
Mining	1	1	-
Shipbuilding	17	10	7
Unallocated	130	57	73
Total All Other	201	86	115
Grand Total	10,173	5,270	4,903
<u>Divisions</u>	<u>Gross</u>	<u>Net</u>	<u>Ratio of Net to Gross</u>
	<u>In Per Cent of Total Invest.</u>		
Production	49.0	46.4	45.6
Transportation	15.2	14.3	45.5
Refining	18.7	17.1	44.3
Marketing	15.1	19.8	63.0
All Other	2.0	2.4	57.2
Total	100.0	100.0	48.2

NOTES: Summarization is based on the combined investment in fixed (capital) assets per books as reported by the companies and their consolidated subsidiaries, and excludes investment in and advances to non-consolidated subsidiaries and affiliated companies operating in the United States and foreign countries.

Total investment includes approximately \$1,000 million (gross) and \$400 million (net) covering facilities located in foreign countries.

NOTICE: If the film image is less clear than this notice, it is due to the quality of the document being filmed

McColl - SDS
90 - 11 - 2 - 502
Source: Research, Acumenics -
Archives, Suitland MD

PAW00455

MCD026

0913 FL

Reproduced from the holdings of the National Archives
Pacific Southwest Region

TABLE 9

BORROWED AND INVESTED CAPITAL EMPLOYED BY OIL COMPANIES
DURING THE EIGHT-YEAR PERIOD FROM DECEMBER 31, 1933 to 1941

Year Ending	Number of Companies	Funded & Long-Term Debt	In Millions of Dollars			
			Preferred Stock	Common Stock	Surplus	Minority Interest
12/31/33	29	866	239	3,550	1,793	333
12/31/34	29	764	237	3,187	1,793	393
12/31/35	29	685	233	3,143	1,906	362
12/31/36	29	671	246	3,290	1,951	273
12/31/37	30	776	269	3,430	2,217	280
12/31/38	30	983	244	3,440	2,247	272
12/31/39	30	1,025	244	3,457	2,315	274
12/31/40	30	1,035	235	3,425	2,317	257
12/31/41	30	1,065	189	3,439	2,457	267
						6,781
						6,374
						6,329
						6,431
						6,972
						7,186
						7,315
						7,269
						7,417

Year Ending	Number of Companies	Funded & Long-Term Debt	In Per Cent of Total			
			Preferred Stock	Common Stock	Surplus	Minority Interest
12/31/33	29	12.8	3.5	52.3	26.5	4.9
12/31/34	29	12.0	3.7	50.0	28.1	6.2
12/31/35	29	10.8	3.7	49.7	30.1	5.7
12/31/36	29	10.4	3.8	51.2	30.3	4.3
12/31/37	30	11.1	3.9	49.2	31.8	4.0
12/31/38	30	13.7	3.4	47.9	31.2	3.8
12/31/39	30	14.0	3.3	47.3	31.6	3.8
12/31/40	30	14.2	3.2	47.1	31.9	3.6
12/31/41	30	14.4	2.8	46.1	32.1	3.6
						100.0
						100.0
						100.0
						100.0
						100.0
						100.0
						100.0
						100.0
						100.0

PAW00456

MCD026

09/14/FL

TABLE 10
PER CENT RETURN ON INVESTED CAPITAL BY 29 OIL COMPANIES
DURING THE EIGHT-YEAR PERIOD, 1934-1941

Year	9 SOLELY PRODUCING COMPANIES			4 COMPANIES WITH PRODUCTION IN EXCESS OF REFINERY REQUIREMENTS			16 COMPANIES WITH PRODUCTION LESS THAN REFINERY REQUIREMENTS			TOTAL 29 COMPANIES		
	Average Invested Capital	Net Income	Return	Average Invested Capital	Net Income	Return	Average Invested Capital	Net Income	Return	Average Invested Capital	Net Income	Return
1934	131	6	4.7	401	17	4.2	4,868	135	2.8	5,400	158	2.9
1935	136	9	6.5	394	30	7.7	4,720	217	4.6	5,250	256	4.9
1936	137	14	10.1	398	40	10.1	4,850	360	7.4	5,385	414	7.7
1937	139	16	11.4	421	57	13.4	5,103	498	9.8	5,663	571	10.1
1938	140	15	10.5	426	21	5.0	5,282	262	5.0	5,848	298	5.1
1939	139	11	8.0	422	20	4.7	5,337	287	5.4	5,898	318	5.4
1940	137	9	6.8	423	28	6.6	5,360	336	6.3	5,920	373	6.3
1941	135	15	11.1	429	50	11.5	5,388	462	8.6	5,952	527	8.8
Yearly Average 1934-1941	136	12	8.7	414	33	7.9	5,113	320	6.3	5,663	365	6.4

NOTES: Invested capital represents the average of the book value of outstanding preferred and common stocks and consolidated surplus accounts at the beginning and end of each year.
 Net income is after deducting all charges and represents earnings available for preferred and common dividends.

PAW00457

MCD026

09/15/14

US-SH057817

Exhibit 4

TRANSCRIPT OF PROCEEDINGS

UNITED STATES DISTRICT COURT

FOR THE CENTRAL DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA, STATE OF
CALIFORNIA, ex rel., CALIFORNIA
DEPARTMENT OF HEALTH SERVICES,
HAZARDOUS SUBSTANCE ACCOUNT, and
HAZARDOUS SUBSTANCE CLEANUP FUND,

Plaintiffs,

--vs--

SHELL OIL COMPANY, UNION OIL COMPANY
OF CALIFORNIA, ATLANTIC RICHFIELD
COMPANY, TEXACO, INC., LOS COYOTES
ESTATES, LTD., RAMPARTS RESEARCH &
FINANCIAL CORPORATION, and McCAULEY
LCX CORPORATION,

Defendants.

AND RELATED CLAIMS

VOLUME III

Number:

CV 91 0589 RJK (Ex)

Deposition of ROBERT NATHAN

Pages 385 thru 589

Arlington, Virginia
October 10, 1991

MILLER REPORTING COMPANY, INC.

507 C Street, N.E.
Washington, D.C. 20002
546-6666

1 Profits never tend to be the same industry by industry.

— 2 But for the petroleum industry, one might
3 well look at the pre-war period. But looking at the
4 average over a ten-year period depends on what happened
5 during that ten-year period.

6 I think that on the whole, 6 percent is an
7 appropriate limitation. It is a modest one. There are
8 many industries that made much more than 6 percent
9 before the war and many made less. But I think that
10 the 6 percent was something arrived at by the Petroleum
11 Administrator for War that seemed a reasonable upper
12 limit.

13 Q. In fact the oil industries' increased sales
14 as a result of their government contracts meant that
15 their gross revenues during the war were, in all
16 likelihood, substantially greater than they had been in
17 the pre-war period?

18 A. But so was their capital. They increased a
19 lot of their investments so the capital to equity was a
20 bit higher. I don't know how much.

21 MR. LERMAN: I am going to object to this
—22 again because Mr. Nathan has not made a study of this.

Exhibit 5

cc: E. D. Cummins Refining Files

~~D. W. Wilson~~

Capt. Wilk

G. L. Parkhurst

Geo. L. Parkhurst

R. B. Cragin

June 12, 1943

✓ 100 Octane Aviation Gasoline
 ✓ Hydrogenation
 ✓ Humble Oil & Refining Co.,
 Baytown, Texas.

You will recall that Humble Oil and Refining Company reluctantly, and at our insistence, filed a PD-200 application some months ago covering a low pressure hydrogenation unit for Baytown, Texas. It was contemplated that this unit would be used either to hydrogenate fractions of catalytically cracked base stock or to hydrogenate codimer. Subsequently Mr. Hines Baker indicated that he wished to withdraw this application because of:

- (1) The fact that he expected to use a naphthenic charging stock in the second Baytown catalytic cracking unit which would eliminate the necessity for hydrogenation, and
- (2) The fact that there were no data which would provide assurance that the low pressure hydrogenation unit could be used for the hydrogenation of codimer.

These conclusions of Mr. Baker's were confirmed by Dr. Harry Burks of Standard Oil Company of New Jersey.

Nevertheless you indicated on several occasions that you thought that we should not permit Humble to withdraw its priority application on this hydrogenation unit. I believe that your views were influenced originally in part by the hope that this low pressure hydrogenation plant could be used to hydrogenate codimer or to manufacture C-3 and subsequently by the fact indicated in your communication of May 22 that there will be insufficient naphthenic gas oil to charge the country's catalytic capacity on completion of the presently approved facilities and that it will therefore be necessary to treat a large proportion of the catalytic base stock from fluid cracking units either by hydrogenation or acid if these valuable components are to be made suitable for aviation gasoline blending.

I am entirely sympathetic with your views and have been endeavoring to convince Humble of the desirability of going forward with this hydrogenation unit but without success. In view of the uncertain status of this project it was not included in our recent Program Determination and on May 29, 1943 Mr. Baker wired our Construction Section withdrawing the priority application. I must confess that while I am sympathetic with your views, I am also very sympathetic with Humble's, since Humble has every expectation of using naphthenic gas oil and since it has been unable to obtain data which indicate with any degree of assurance that the low pressure hydrogenation unit can be used for the manufacture of either hydrocodimer or C-3.

GLP:CLJ

6/12/43

NARA-CP
 RG 253 Entry 510
 Box 3512

MAA_EM-001774

Furthermore, I know of no company with which it would be more difficult to work out a satisfactory business arrangement covering a unit which it is reluctant to install. Humble is completely unwilling to handle this or any other major 160 octane project which we have had under discussion in recent months on either an approximately normal private ownership basis or on a Defense Plant basis. Humble insists on a type of arrangement which would give it all of the advantages of private ownership without any of the risk or other disadvantages. I know of no way to work this out to the satisfaction of both Humble and Government. I have no doubt that on a unit which Humble was really interested in installing we could work out satisfactory arrangements, but frankly I would hesitate to tackle the necessary business arrangements in the case of a unit which Humble itself did not feel to be sound. Furthermore, quite aside from these difficulties, I have a great deal of trepidation about asking Humble or any other oil company to undertake the construction of any facilities which it does not feel are desirable.

I had occasion to discuss this matter once more on June 9, 1943, with Mr. Baker who indicated that he thought that hydrogenation was out of the picture because they planned definitely to go "the naphthenic route". He is still working on the possibility of low pressure hydrogenation for the manufacture of hydrocodimer or C-8. The pilot plant work which has been done to date has all been on hydrocodimer although Humble is planning to do work on the hydrogenation of N-C-8 to C-8. Humble has been having trouble with the pilot plant work on hydrocodimer since the codimer tends to break down under the low pressure conditions into butylenes and butane. If the pilot plant work is successful Humble would be willing to submit a proposal. Mr. Baker estimates very roughly that such a low pressure hydrogenation unit could be completed in about six to eight months. There has been no estimate prepared on the investment cost.

(Sgd.) Geo. L. Parkhurst

Geo. L. Parkhurst

Exhibit 6

PETROLEUM ADMINISTRATION FOR WAR

WASHINGTON

SEP 18 1944

Re: 100 Octane Aviation Gasoline
Hydrogenation
Humble Oil & Refining Company
Baytown, Texas

MEMORANDUM OF RECOMMENDATION

One of the important blending stocks used in the production of 100 octane aviation gasoline is hydrocodimer. In blending quality it compares favorably with alkylate and its production therefore is equivalent to a substantially greater production of 100 octane aviation gasoline. Hydrocodimer is produced by hydrogenation from codimer which in turn is manufactured by a large number of refiners using pre-existing refinery facilities converted for this purpose at the request of this Office. For the most part codimer has been hydrogenated at the Baton Rouge refinery of the Standard Oil Company of Louisiana, which Company had, previous to the War, developed and installed large hydrogenating units, together with hydrogen producing facilities which could be readily converted for hydrogenating codimer. Other companies are also equipped to hydrogenate codimer but these plants are relatively small in capacity. As the result of our efforts to convert all available facilities, codimer production increased to a point where it appeared that additional hydrogenating facilities would be required. The operation of such new facilities requires a large continuous supply of hydrogen. A survey of industry disclosed that the Humble Oil & Refining Company had a large amount of by-product gas rich in hydrogen that could be utilized for hydrogenating codimer. This hydrogen containing gas is a by-product of toluene production of the Baytown Ordnance Works and an additional quantity is available as a by-product from butadiene production. Hence by locating the hydrogenating plant in Humble's refinery at Baytown the hydrogen source could be made available with practically no expenditure of critical materials. It further developed that certain equipment in the Humble plant, which was not being used for the production of war goods, could be utilized as a part of the hydrogenating plant, thus making additional savings in time and materials.

Humble was not originally receptive to location of such a plant in its refinery for three reasons; first such a plant operating on stocks from an outside source would add further congestion to an already congested plant by the special handling required; second such a plant had no prospective post war utility particularly when the supply of a key material, hydrogen, was dependent upon the operation of other war production plants and third the construction and operation of such a plant would require the services of its engineering and technical staffs which were needed for conducting other essential operations. However, realizing the urgent need for such an installation in the interest of



1003734

Reproduced at the National Archives

BAYHIS-00011927

- 2 -

maximum 100 octane aviation gasoline production, Humble agreed to the construction of such a plant later known as Plancor 1909, and on September 13, 1943 we recommended to the Honorable Jesse Jones the execution by the Defense Plant Corporation of an Agreement of Lease covering the installation and leasing of such facilities.

Due to the fact that the codimer to be hydrogenated in these facilities originates in a large number of refineries, its exact source, quality and amount changing from time to time depending upon the capacity and operations of the other hydrogenating plants, availability of transportation and point of blending the hydrocodimer into 100 octane aviation gasoline, Humble insisted and we agreed that the usual type of supply contract was not applicable to this operation. As pointed out in our letter of August 3, 1943 to the Honorable Jesse Jones preliminary discussions between Defense Supplies Corporation, Humble and this Office had taken place regarding a suitable processing contract but that such an Agreement had not been worked out. We further stated that we were confident that suitable arrangements could be made and that we did not believe that the construction of the plant should be delayed awaiting development of a processing contract, in view of the extreme urgency for the project to proceed forthwith. The Agreement of Lease was accordingly entered into on this basis, in the expectancy of later agreement upon a suitable processing contract.

As a result of further research on hydrogenation it has been found advantageous to hydrogenate catalytically cracked naphtha. Our contemplated use of the aforementioned hydrogenation facilities has accordingly been enlarged to include treatment of this product in the interest of yet further contribution to maximum 100 octane aviation gasoline production.

We have now completed negotiation of an Operating Contract between Defense Supplies Contract and Humble dated as of June 1, 1944 covering the aforesaid processing operations. The negotiations were carried out in close cooperation with representatives of Defense Supplies Corporation and the detailed provisions thereof are understood to meet with the approval of that Corporation. It has been necessary also at this time to negotiate several amendments to the aforesaid Agreement of Lease in order to provide for changed conditions and to revise the lease in accordance with the requirements of the Operating Contract. These amendments are incorporated in a proposed Agreement Amending Agreement of Lease dated June 1, 1944.

The purpose of the following portions of this Memorandum is to outline the detailed provisions of the Operating Contract and the changes in the Agreement of Lease which will be effected by the Agreement Amending Agreement of Lease.

Operating Contract

The Operating Contract dated as of June 1, 1944 provides for the purchase and acquisition of raw feed stock (by which is meant codimer and/or catalytically cracked naphtha), the hydrogenation of the raw feed stocks and the sale and

1003735

Reproduced at the National Archives

BAYHIS-00011928

delivery of the hydrogenated product. Insofar as the purchase and acquisition of feed stocks and the disposition of the final product is concerned Humble acts solely as agent for Defense Supplies Corporation, and such petroleum materials as well as by-products of the plant remain the property of Defense Supplies Corporation and its risk of loss until disposition thereof as provided. Insofar as the processing of the charge stock is concerned Humble, under the contract, operates the facilities as an independent contractor furnishing all necessary materials and labor and taking delivery of by-products at negotiated prices.

The Operating Contract specifies and provides for payment by Defense Supplies Corporation of the several elements of cost which will be incurred by Humble thereunder. In general these elements comprise direct costs such as cost of improvements, replacements and additions required in connection with the facilities but for which reimbursement is not provided under the Agreement of Lease, catalyst, raw materials and feed stocks, receiving and shipping charges, patent royalties, taxes, pilot plant cost, rental and insurance, as well as certain negotiated costs, specifically a charge for processing and the charges for shipping and receiving petroleum products in connection with the operation of the facilities. As against the foregoing charges, it is provided that Defense Supplies Corporation shall be credited with the amounts received from sales of the hydrogenated product as well as the negotiated values of the respective by-products produced as a result of the operation.

The raw feed stocks will be purchased from third parties and at prices approved by Defense Supplies Corporation except for such raw feed stock as may be supplied from Humble's refinery in which event the prices therefor have been or will be agreed upon between the parties.

Of the additional raw materials needed for operation of the plant the hydrogen-containing gas which Humble derives from the Baytown Ordnance Works and/or a butadiene plant located at Baytown has been priced at its cost to Humble. The absorber oil and heavy naphtha likewise required in the operation of the hydrogenation facilities have been priced on a basis of published market prices for such products and the price for heavy naphtha includes quality adjustment whereby the amount received by Humble for these products will be equal to their current market value.

The credit for the by-products has substantially the same basis. Of the gases returned, these are, under the contract, priced on the basis of their actual heating value at the current market value per million B.T.U.'s. A stream of liquid absorption naphtha containing a mixture of various light hydrocarbons and motor gasoline is priced on the basis of the market value of the various components with proper volume allowances for subsequent segregation. The motor gasoline contained therein has been priced at the current published market value with a correction for quality. The so-called bottoms produced in the hydrogenation facilities consists of a portion suitable for a cracking charge stock and a deficient motor gasoline fraction. The first named portion is credited on the basis of its value to Humble as charge stock in subsequent cracking operations. The deficient motor gasoline fraction is credited at the published price for motor gasoline adjusted for its actual variation in octane number from that of motor gasoline. We believe all of these various prices

1003736

Reproduced at the National Archives

BAYHIS-00011929

- 4 -

and credits to represent the actual value of the materials in question and hence to be fair and reasonable to Government.

The processing charge is a negotiated debit to Defense Supplies Corporation based upon all of the estimated costs involved in carrying out the operation in question. The costs thus determined have been segregated into (A) those which continue regardless of whether the plant is or is not in operation, (B) those which are incurred while the plant is in operation irrespective of the volume of material processed and (C) those costs which are directly related to the volume of feed stocks processed. The processing charge is arrived at, on a monthly basis taking into consideration the foregoing factors together with the number of days in the month, the number of days of actual operation in the month and the volume of feed stock charged to the hydrogenation facilities during such month.

A profit allowance of 1/10 of a cent per gallon of material processed is included in the processing charge and computed on the basis of the volume of feed stock charged to the hydrogenation facilities. This charge accordingly provides a small incentive to maximum production. However, since the amount of feed stock which Humble may process is within the control of Defense Supplies Corporation the contract provides a floor of 6,000 barrels per calendar day in respect to which Defense Supplies Corporation is obligated to pay profit at the rate of 1/10 of a cent per gallon. This compares with the estimated capacity of 8,000 barrels per day for these facilities. Conversely a ceiling on profit is set by a provision that Humble will credit Defense Supplies Corporation with 1/10 of a cent per gallon for any volume of raw feed stock processed which is in excess of an average of 10,000 barrels per day during any month.

Additional provision has been made for adjustment of the processing charge in the event that the plant is shut down whether at the will of Defense Supplies Corporation or otherwise. Where shut down occurs, certain of the negotiated processing costs cease. A certain portion of these processing costs continue where the shut-down is required for normal maintenance purposes. Humble has represented however that under the existing labor relations requirements such costs must in any event continue for approximately 21 days after shut down unless it receives sufficient advance notice which in any event will require continuance of these costs for seven days after shut-down. Accordingly the Operating Contract provides for an appropriate credit to Government in the event that the present hydrogenation facilities are out of operation in excess of 21 calendar days except where Defense Supplies Corporation gives sufficient advance notice of such shut down, in which event the credit will apply for a period beginning seven days after shut-down.

The Operating Contract provides tank car, shipping and receiving charges at a rate which is materially in excess of that met with in normal refinery operation. Humble represents however that the shipping and receiving rates are based on its actual expense and points out that the present refinery was designed and arranged solely with the purpose of affording maritime receipts and shipments and that high cost for tank car handling is unavoidable. We have

1003737

Reproduced at the National Archives

BAYHIS-00011930

- 5 -

therefore provided in the Contract that the aforementioned refinery cost for such services during the first three months of operation under the Contract will be determined and that such costs will thereafter apply as receiving and shipping charges.

The Operating Contract contains the usual provisions regarding auditing of Humble's records pertaining to all direct charges and credits and the other factors necessary in determining the processing charge under the formula provided in the Contract. All commitments reimbursable by Defense Supplies Corporation for improvements, replacements and additions to the facilities in excess of \$1,000 and all other commitments by Humble for a sum in excess of \$10,000 are subject to advance written approval by Defense Supplies Corporation. The Contract is for a period of one year from the date upon which processing is commenced with the option in Defense Supplies Corporation to require Humble to complete processing of any feed stocks then on hand. Patent royalty provisions reflect the right now held by Humble to use and operate under certain hydrogenation patents and patent rights now in existence, by specifying that Humble shall hold Defense Supplies Corporation harmless from all claims, demands and causes of action which may be asserted in respect to such patent or patent rights. Conversely it is provided that Defense Supplies Corporation shall hold Humble harmless in respect to all other patent claims, demands or causes of action.

The statutory provisions are in usual form.

Agreement Amending Agreement of Lease

The Agreement Amending Agreement of Lease provides for the following general changes in the Agreement of Lease dated as of July 21, 1943.

1. An increase in the maximum total appropriation to \$4,220,000. This was recommended by Mr. Bruce K. Brown's letter of May 30, 1944 to Mr. Hans Klagsbrunn.
2. Necessary provisions have been included for the hydrogenation by the Defense Plant facilities of catalytic cracked naphtha as well as the originally contemplated selective polymer.
3. Provisions are made for a more specific definition of the construction program in order to include certain housing facilities within Camp Butyl which have been more recently incorporated under the present project, as well as the removal from the Defense Plant site of certain pre-existing equipment which is the property of Humble, and the establishment of necessary off-lease-hold facilities required at Humble's refinery at the Baytown Ordnance Works and the butadiene plant at Baytown, Texas.
4. It is provided that all items of equipment removed from the Defense Plant facilities and replaced by items of substantially like kind and quality shall become the property of Humble. This provision was necessary to enable Humble to determine its maintenance costs in accordance with normal refinery practice. The negotiated cost for maintenance embodied in the processing charge under the Operating Contract has been arrived at on this basis.

1003738

Reproduced at the National Archives

BAYHIS-00011931

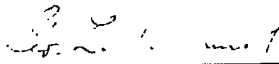
- 6 -


5. In lieu of the original provision in the Agreement of Lease specifying the duration of the Agreement as five years, the amended provision provides for the automatic termination upon the expiration, termination or cancellation of the Operating Contract between Humble and Defense Supplies Corporation.

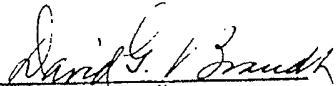
6. The provisions of the Original Agreement of Lease contemplating execution of the Operating Contract have been enlarged to permit such execution within an 18 month period from the date of the Agreement of Lease without sacrifice of any of Humble's original rights under the Lease.


7. The date of estimated completion of the facilities has been changed to August 15, 1944.

Both Agreements are believed necessary and advantageous to Government. Accordingly execution of the Operating Contract by Defense Supplies Corporation and of the Guarantee attached thereto by Reconstruction Finance Corporation, and execution of the Agreement Amending Agreement of Lease by Defense Plant Corporation are recommended.


Geo. L. Parkhurst,
Assistant Director of Refining.


R. Werlin,
Chief, Facilities Section.


David G. Brandt,
Economic Analyst.


Lewis H. Phelps,
Principal Contract Negotiator.

1003739

Reproduced at the National Archives

BAYHIS-00011932

Exhibit 7

TRANSCRIPT OF PROCEEDINGS

UNITED STATES DISTRICT COURT

FOR THE CENTRAL DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA, et al.,

Plaintiffs,

--VS--

SHELL OIL COMPANY, et al.,

Defendants.

Case No.

CV 91-0589 RJK (Ex)

Volume IV

Deposition of LINCOLN GORDON

Pages 785 thru 992

Washington, D.C.
June 24, 1992

MILLER REPORTING COMPANY, INC.

507 C Street, N.E.
Washington, D.C. 20002
(202) 546-6666

mss

1 aware of other instances where companies were instructed to
2 exchange patents; my question is whether you are aware of
3 other instances where segments of U.S. industry were in-
4 structed to standardize, as far as is possible, the design of
5 and operating and technical data with respect to a particular
6 piece of equipment.

7 A Oh, I am not aware of a case which fully conforms
8 to this case, but exchanging designs, as well as patents,
9 exchanging know-how, which we were talking about before, as
10 well as patents, that was quite common. Whether that led in
11 some other industries to specific standardization of facil-
12 ities, I don't know. It wouldn't surprise me if there were
13 analogs, but I really don't know.

14 Q Assuming that Recommendation No. 23 that is set
15 forth in Exhibit V later became a directive, would these
16 companies have any choice but to enter into the negotiations
17 that are specified on page 3?

18 A No. I think they would be required to do that
19 under the terms of the directive.

20 MR. LERMAN: Let me have marked as the next exhibit
21 in order a one page document dated March 10, 1942.

22 (Defendants Exhibit W was

mss

marked for identification)

BY MR. LERMAN:

Q Have you seen this document before?

A I don't remember whether I have seen this one or not.

Q It is dated March 10, 1942.

A I see that.

Q And it says in the first two lines -- Let's take one at a time. The first line says - quote - "Production of one hundred octane aviation gasoline and toluene to the full extent of capacity of existing facilities is positive requirement under existing conditions - period - close quote. Do you have any understanding as to what is meant by the phrase - quote - positive requirement?

MR. ZEVENBERGEN: Objection. The subject of the memorandum, to put this in context --

MR. LERMAN: What is your objection? Don't testify.

MR. ZEVENBERGEN: My objection is that you are asking a misleading question, because you have quoted that out of context.

MR. LERMAN: That cannot possibly be misleading, since Dr. Gordon has had an opportunity to read the entire

mss

1 document, which consists of only one-third of a page, a
2 single page.

3 MR. ZEVENBERGEN: But you should at least call to
4 his attention that it also says "Subject: Requesting all
5 refiners of 100 octane aviation gasoline and toluene to
6 increase production to full extent of capacity of existing
7 facilities."

8 MR. LERMAN: I still don't understand your objec-
9 tion, other than an attempt to try to coach, but I don't
10 understand the objection at all.

11 MR. ZEVENBERGEN: Oh, hogwash.

12 BY MR. LERMAN:

13 Q My question is simply with respect to the first
14 line of the document whether Dr. Gordon has an understanding
15 of what - quote - positive requirement - close quote - means.

16 A I think "positive requirement" in this context
17 meant that it is important for the war effort that we get as
18 much 100-octane gas and toluene as possible. I don't think
19 this is a legal document imposing some legal obligation on
20 the companies. This is telling them these two things are
21 needed badly, to the extent of full capacity, and we want you
22 to tell us if you foresee something that is going to inter-

mss

1 fere. I think that is what is meant by "positive require-
2 ment".

3 Q And the reason why you don't think that this has
4 force of law is what?

5 A The context. A document imposing upon them a legal
6 obligation would not be in this telegraphic, rather informal
7 form. It would be a directive that would be something with
8 proper legal verbiage around it. This is a -- this is not at
9 all an unusual type of communication to an industry, telling
10 them about an important wartime need and asking them to let
11 the authorities know if there is anything that is likely to
12 interfere with it.

13 Q Is it your understanding that the PAW issued many
14 of these directives in the form of telegrams?

15 MR. ZEVENBERGEN: Objection. Misleading.

16 THE WITNESS: Oh, certainly there were many in the
17 form of telegrams, but this is an informal telegram. This is
18 not in the form of a directive.

19 BY MR. LERMAN:

20 Q It says here at the top - quote - The following
21 telegram was sent over the signature of the Deputy Petroleum
22 Coordinator". Do you see that?

mss

1 A Yes.

2 Q I am just asking. Was it a case that a number of
3 directives were, in fact, sent to the refineries through
4 telegrams?

5 A Formal directives through telegrams, I believe so,
6 but this is not one of them.

7 Q Would you look at the second line of this document,
8 which says - quote - This must be accomplished even though
9 extreme measures be necessary - period - close quote. Do you
10 see that?

11 A Yes. That is not the second line; that is the
12 second sentence, but I see it.

13 Q Do you have any understanding as to what that means?

14 A That is part -- that is simply reinforcing the
15 first paragraph.

16 Q As someone working for the War Production Board and,
17 later in the war, when you were in a policy making position
18 for the War Production Board, if you told a particular
19 industry that it is a positive requirement that the full
20 extent of your existing facilities be used to generate a
21 certain product and that extreme measures should be taken, if
22 necessary, what would you have intended to communicate by

1 that?

2 MR. ZEVENBERGEN: Objection. Misleading. That is
3 not the full context of the communication that Dr. Gordon is
4 testifying to, Cary, so to that extent it is misleading. It
5 is also misleading because he has already testify that in his
6 opinion this communication to refineries does not have the
7 force of law, and you are asking him to look at the document
8 and agree with you that it has the force of law.

9 MR. LERMAN: My question stands.

10 THE WITNESS: I would understand this to be urging
11 -- this is jawboning, if you want. It is a rather strong
12 case of jawboning. It is also asking for some specific
13 response, not in terms of action, but notification of things
14 that might get in the way.

15 By "extreme measures", I presume that means
16 rejuggle the way in which the refinery is operating, maybe,
17 with some less important product, reducing its production
18 considerably in order to maximize the production of these two
19 specified items. That is the kind of thing which I would
20 take or I would assume "extreme measures" would mean.

21 MR. LERMAN: I would like to have marked as the
22 next exhibit a document dated January 27, 1943.

180152

STATEMENTS RELATING TO POLICY

Subject: Requesting all refiners of 100 octane aviation gasoline and toluene to increase production to full extent of capacity of existing facilities.

Date: March 10, 1942.

The following telegram was sent over the signature of the Deputy Petroleum Coordinator to all refiners of 100 octane aviation gasoline and toluene.

"Production of one hundred octane aviation gasoline and toluene to the full extent of capacity of existing facilities is positive requirement under existing conditions. This must be accomplished even though extreme measures be necessary. If at any time in your company you foresee prospect of interference with such full capacity production of either of these products, please notify this Office immediately and preferably at least two weeks in advance of actual occurrence. Give full description of your situation with your proposals as to solution of your problem."

A00119

000107



6-11

Exhibit 8

Capital Reporting Company
Gravel, Alfred, "AJ" 02-28-2013

1

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

-----:
EXXON MOBIL CORPORATION, :
 :
Plaintiff, :
 : CA No. 4:10-cv-2386
v. : and
 : CA No. 4:11-cv-01814
THE UNITED STATES OF AMERICA, :
 :
Defendant. :
-----:

Washington, D.C.
Thursday, February 28, 2013

Deposition of:

ALFRED "A.J." GRAVEL,

Called for examination by counsel for Defendant,
pursuant to notice, at the Law Offices of Baker
Botts, 1299 Pennsylvania Avenue, NW, Washington,
D.C., before Barbara A. Huber of Capital Reporting,
CSR, and Notary Public in and for the District of
Columbia, beginning at 9:33 a.m., when were present
on behalf of the respective parties:

Capital Reporting Company
Gravel, Alfred, "AJ" 02-28-2013

197

1 buyer of the product, that limited Humble or the
2 oil companies' abilities to negotiate freely?

3 A Well, I -- I think that certainly there
4 were statutory authorities that -- that were in
5 place at that time that -- that allowed the
6 government to have seizure authority and allowed
7 the government to -- to place compulsory orders
8 that were subject to fines and imprisonment. And
9 I'm sure that was not lost on the companies as they
10 were negotiating their contracts.

11 Q Are you aware of any evidence that the
12 seizure power and the threat of imprisonment or
13 fines played -- was a factor in negotiations
14 between Exxon oil companies and the government,
15 with respect to these avgas contracts?

16 A Well, I think they were well publicized
17 and -- and -- but I can't speak to the state of
18 mind of the -- of the government or Exxon at that
19 particular period of time with regard to these
20 specific contracts.

21 Q But you're not aware of any evidence that
22 the threat of seizure, imprisonment, or fines

Capital Reporting Company
Gravel, Alfred, "AJ" 02-28-2013

208

1 make avgas opted out of the program, was -- was
2 allowed to opt out of the program.

3 BY MS. PEOPLES:

4 Q Mr. Gravel, that's not my question.

5 Did you see anything in the historical
6 record where the Exxon oil companies indicated that
7 they wanted to opt out of the wartime program?

8 A No, I haven't seen a document that
9 suggests that.

10 Q Have you seen anything in the historical
11 record where the government is compelling the Exxon
12 oil companies to participate, to opt in, to the
13 wartime program?

14 MR. McGOVERN: Objection. Ambiguous.

15 THE WITNESS: I think -- I wouldn't say
16 I've seen anything in the way that you're
17 describing it.

18 What I would say is that the companies
19 knew the power that the federal government had, and
20 I don't think anybody really wanted to test that.
21 Because they knew that facilities and companies had
22 been taken over for -- for various reasons over

Capital Reporting Company
Gravel, Alfred, "AJ" 02-28-2013

209

1 time, and I'm not sure anybody wanted to test that
2 theory.

3 BY MS. PEOPLES:

4 Q Well, you agree that there were seizures,
5 I'm sure there -- there were fines, there was
6 prisonment during the war -- World War II; is that
7 correct?

8 A Uh-huh, yeah.

9 Q So some people did test the government's
10 powers; isn't that right?

11 A They did.

12 Q And there were consequences?

13 A There were consequences, for sure.

14 Q Did you see any evidence of that in
15 respect to the Baytown or Baton Rouge refineries?

16 A I haven't seen anything in the record
17 that they asked to opt out of the program.

18 Q Did you see any evidence in the record
19 where they tried to test the government's powers?

20 MR. McGOVERN: Objection. Ambiguous.
21 Lack of foundation.

22 THE WITNESS: No, I don't recall.

Capital Reporting Company
Gravel, Alfred, "AJ" 02-28-2013

313

1 and inserting itself in the process.

2 BY MS. PEOPLES:

3 Q Is it also relevant maybe to
4 understanding Humble's and Standard's desire to
5 participate in the war production program?

6 A Well, again, I think Humble and Standard
7 Louisiana, as I've testified earlier today, were as
8 patriotic as any companies out there. I think that
9 they probably did not want to, unless they had to,
10 sit on the sidelines.

11 But, you know, what they did was -- was
12 nonetheless, you know, done under the auspices
13 of -- of the Petroleum Administration for War
14 Direction, Rubber Reserve, and these other federal
15 programs.

16 Q But is it fair to say that they saw that
17 the war was coming, that there would be a need for
18 these products, that they had researched and
19 developed certain processes, they were, as you say,
20 on the forefront?

21 Doesn't it seem that they, for at least
22 good business reasons, want to participate in the

Capital Reporting Company
Gravel, Alfred, "AJ" 02-28-2013

339

1 Q I didn't --

2 A -- and the acknowledgment of the coercive
3 effect, which you are asking me about, I think.

4 Q Well, I think a couple times today you've
5 testified that you can't get into the minds of the
6 Humble executives.

7 So how can you get into the minds of the
8 Humble executives in this instance and talk about
9 whether or not they felt compelled to do something?

10 A The coercive effect, in my opinion, was
11 present. I'll leave it at that.

12 Q Okay.

13 A For now.

14 Q Was it present -- it may be present, but
15 have you seen any documents where the government
16 threatened Humble to take over its Baton Rouge --
17 I'm sorry, its Baytown refinery?

18 A I think that the -- not at Baytown.

19 Q Have you seen any documents where the
20 government threatened Standard to take over its
21 Baton Rouge refinery?

22 A No.

Exhibit 9

HUMBLE OIL & REFINING COMPANY
HOUSTON, TEXAS

HINES H. BAKER,
VICE-PRESIDENT

December 27, 1941

RECEIVED



FOR NATIONAL DEFENSE

DEC 29 1941 PM

MAIL & FILES

Mr. Wright W. Gary
Director of Refining
Office of Petroleum Coordinator
Department of the Interior
Washington, D. C.

Dear Mr. Gary:

The several provisions of Recommendation No. 16 of the Office of Petroleum Coordinator for National Defense have been reviewed by our organization. As requested in Paragraph 1504.15 of Recommendation No. 16, we are assembling all information on existing contracts and agreements for the production, storage, use, sale, or other disposition of all grades of aviation gasolines and blending agents. Humble has entered into a number of contracts for supplying requirements of the Army and the Navy at various airfields in the State of Texas and has certain other contracts involving relatively small quantities of materials covering sales to various commercial airports in Texas, where the 100 octane gasoline goes to Army or Navy planes. The remainder of our supplies of aviation gasolines and blending agents are committed to Standard Oil Company of New Jersey and are sold to it under the terms of a product sales contract. The detailed information will be forwarded to your office as soon as it is assembled.

Recognizing the urgency for conserving supplies of aviation gasolines, it is our earnest desire to comply with any program which will have the effect of improving the general situation. However, we feel that the provisions of Paragraph 1504.16 of Recommendation No. 16, entitled "Prior Review of Action Affecting Aviation Gasoline," and as amended by a telegram of December 17 from Mr. Ralph K. Davies, Deputy Petroleum Coordinator, will cause undue difficulty in our efforts to handle movements of aviation gasolines. It was the understanding of Dr. H. D. Wilde, who attended the recent Aviation Gasoline meetings in Washington, December 10 to 16, that Paragraph 1504.16 as submitted to us would be withdrawn

NARA-CP, RG 253
Entry 511, Box 3944

MAA_EM-003812

Mr. Wright W. Gary

-2-

December 27, 1941

and declared inoperative until replaced with a modified version, since it was the general opinion of those attending the meeting that the necessity for forwarding antecedent advice to your office concerning production, storage, use, sale, or other disposition of aviation gasolines would cause undue delay in the dispatch of such business without serving any particularly useful purpose.

Our general situation with regard to production of aviation gasolines and blending agents has been submitted to your office and reviewed by the Aviation Gasoline Subcommittee. We are adhering to the general principles outlined by your office in efforts to maintain maximum productive rate of 100 and 91 octane aviation gasolines and have evidenced our willingness to cooperate in any program which will have the effect of further increasing supplies of this premium fuel. In view of the fact that, with the exception of a small quantity of aviation gasoline committed to commercial airports, all of our production is either going direct to the Army and the Navy or to Standard Oil Company of New Jersey, which in turn has submitted its full picture to you and is selling its supplies to the Army and the Navy for Lend-Lease purposes and to engine builders; we do not see how much of anything could be gained if we forward to your office antecedent advice concerning the production and disposition of aviation gasolines and blending stocks, particularly so long as our supplies continue to be sold in line with the program outlined. For example, we do not see what advantage can be gained from antecedent authorization for delivery to Standard Oil Company of New Jersey, so long as you know that all our excess supplies over and above that which is committed locally to these airports and under contract to the Army and the Navy is to be delivered to that concern. Accordingly, we ask that the provisions of Paragraph 1504.16 as now written and as apply to our operations be waived. If this cannot be granted generally, we would like to have it waived, or be held to be complied with, except as to sales and dispositions to other purchasers not in line with the program which has been submitted.

NARA-CP, RG 253
Entry 511, Box 3944

MAA_EM-003813

Mr. Wright W. Gary

-3-

December 27, 1941

In other words, what we would like to have is an authorization to proceed with the carrying out of the outlined program without the necessity of reporting and securing prior authorization on individual deliveries.

I remain Thanking you for early advice on this matter,

Very truly yours,



HHB:gd

Exhibit 10

CLASS OF SERVICE
This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

W. P. MARSHALL, PRESIDENT

1220

SYMBOLS

DL = Day Letter

NL = Night Letter

LC = Deferred Cable

NLT = Double Night Letter

Ship Radiogram

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

WP103 LONG PD VIA KE=WUX NEWYORK NY 11 151P= *File*
H A STEWART, ACTING DEPUTY ADM PETROLEUM DEFENSE ADM
DEPT INTERIOR EX 3831.

RECEIPT IS ACKNOWLEDGED YOUR TELEGRAM OCTOBER 4TH AND WE ARE GLAD TO GIVE ASSURANCE THAT EVERY POSSIBILITY FOR INCREASING THE SUPPLIES OF AVIATION GASOLINES OF 100/130 OCTANE OR HIGHER AS WELL AS COMPONENTS THEREOF IS BEING ACTIVELY INVESTIGATED. THIS HAS BEEN OUR POLICY SINCE THE TIME OF OUR FIRST INFORMATION THAT MILITARY REQUIREMENTS HAD NOT BEEN COVERED. WE WILL MAINTAIN CLOSE CONTACT WITH MR FRAME AND WILL INFORM HIM IMMEDIATELY WHEN AND IF IT APPEARS THAT WE CAN PROVIDE EITHER GRADE 100 OR GRADE 115 AVIATION GASOLINES ABOVE THE HEAVY COMMITMENTS WHICH WE HAVE ALREADY TAKEN=

S C HOPE ESSO STANDARD OIL CO=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

Exhibit 11

ARMY SERVICE FORCES
OFFICE OF THE CHIEF OF ORDNANCE
OFFICE OF THE FIELD DIRECTOR OF AMMUNITION PLANTS
3629 LINDELL BOULEVARD
ST. LOUIS 8, MISSOURI

EM Johnston/eh
406

1138

0081

Legal Unit

21 March 1944

Humble Oil & Refining Company
Houston, Texas

Attention: Mr. Hines H. Baker

Re: Change Order #28 to Contract W-ORD-480

Gentlemen:

Reference is made to your letter of 10 March 1944, concerning the above Change Order, in which you suggest a change in the wording thereof.

The change requested by you has the effect of placing all responsibility for making the Plant safe and free from explosive hazards on the Contracting Officer. This is, of course, in direct contravention of the desire of the Ordnance Department, as expressed in the Change Order as drafted originally. What actually is desired is to obtain from you and the other Contractors operating the Government-owned Plants under the jurisdiction of this office the benefit of your experience in such work. The Ordnance Department must rely on your recommendations as to the work to be done in decontamination. In other words, your advice, based on your knowledge and experience, is what is sought, since you, and not the Ordnance Department, are the expert in this field.

With the above thought in mind, and at the same time in order to comply as far as is possible with your requested changes, this office suggests the inclusion of the phrase "and as may be approved or directed by the Contracting Officer" following the words "reasonably possible to do so" at the end of the first sentence of paragraph 1a. of the Change Order as drafted.

With the belief that this will be satisfactory to you, the change has been accomplished by affixing an asterisk at the point at which the phrase is to be inserted, and affixing an asterisk and the phrase to be included in the blank space immediately below paragraph 1a of the Change Order. The same should be initialed by the Corporate Officer signing the Change Order.

Change Order No. 28 is returned herewith so that if the modification suggested herein is satisfactory, the execution thereof may be accomplished by you at an early date.

For the Chief of Ordnance:

Very truly yours,

JOHN J. McINERNEY
Major, Ordnance Dept.,
Assistant

1 Incl. Chg. Ord. #28 (trip)

029443